

## Entrepreneurial Competency, Innovation, and Small Business Performance

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### Abstract

**Purpose:** The purpose of this study is to establish a mediational model of business performance in small and medium enterprises. In this paper, the authors examine how the entrepreneur's personal entrepreneurial competencies: systematic planning and information-seeking influence small business performance. The objective through this model is to show that it is through the process of innovation these resources are transformed into business success.

**Design/methodology/approach:** Based on data obtained from a sample of 462 private small firms drawn from the Amhara Region, Ethiopia, the study used a structural equation modeling to validate the mediational model of small business performance.

**Findings:** The results have shown that businesses that want to attract and increase the number of customers and thereby make more profit, obtain market share and reputation need to be innovative. Nonetheless, the degree to which they will innovate depends on their capacity to systematically plan ahead and monitor and their capacity to seek and manage external information. The entrepreneurial capabilities (planning and information seeking) are important to realize small business success because they boost innovation, and it is the innovation that expedites small business performance. The findings also established a positive relationship between non-financial performance and financial performance. Success must be achieved on key non-financial measures such as high customer loyalty and a positive image and reputation and attract new customers better than organizations that do not prior to realizing success on key financial measures such as profit and sales.

**Research and practical implications:** The results of this study provide a contribution to both research and practice. The study provides a new contribution to the extant entrepreneurship literature by introducing innovation as a mediator in the relationships between entrepreneurial competencies and small business performance. The entrepreneurial competencies are the key qualities for converting an entrepreneurial vision into successful products or services required to meet or surpass market needs, which in turn, influence the overall performance of businesses. Understanding the small business performance through entrepreneurial competencies offer entrepreneurs with knowledge about the way they would run their business and enables them to be aware of the potential positive or negative influences of their own behavior or actions.

**Originality:** This paper extends the existing entrepreneurial literature by developing the mediational model of small business performance. To the authors' knowledge, this paper is the first to examine the indirect effects of systematic planning and information-seeking behavior of entrepreneurs on small firm performance through the mediation of innovation.

**Keywords:** Entrepreneurial competency; systematic planning; monitoring; information seeking; innovation; small business performance.

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### I. Introduction

Small and Medium Enterprises (SMEs) have been widely accredited as a vital part of economic development. They constitute the majority of the private companies in world economies and generate a large share of new jobs, 60 to 70 percent of employment (Audretsch, Keilbach, & Lehmann, 2006; OECD, 2000; Gunasekaran, Rai, & Griffin, 2011; Kandah, 2011; Hoque & Awang, 2016). The strength and healthy functioning of an economy are measured against its dexterity to create jobs, contribute to industrialization and boost national economic output. In consequence, creating productive and competitive private sector in which SMEs play a major role has been a central phenomenon of research and policymaking.

As a developing country, Ethiopia critically needs to gain the benefits offered by this sector. However, prior studies (e.g., Tefera et al., 2013; Gebreeyesus, 2007) reported that Ethiopia has failed to maximize the benefits derived from this sector. Only a few SMEs are exceptionally performing and growing to medium and

to large-scale enterprises (the Ministry of Urban Development and Housing (MoUDH), 2013; Mohammed et al., 2015; Wondwossen, 2015; Talegeta, 2014; Sidik, 2012; Gebreyesus, 2007). So, why are some SMEs more innovative than others given the same operating environment remains open for further investigation. Therefore, looking for new solutions to indicate how more SMEs would improve their innovativeness so that they can survive the dynamic and competitive environment is indispensable.

Past research on business success has paid more emphasis on the role of multiple factors such as various forms of government support, facilitation of the basic infrastructure and shield against competition from larger businesses (Yusuf, 1995), training and education (Robertson, Collins, Medeira, & Slater, 2003), organizational variables (e.g., venture strategy, internal resources, processes, systems and organizational structures) (Chrisman, Bauerschmidt, & Hofer, 1998) and institutional environment factors (e.g., rule of law, business regulatory quality, corruption) (Roxas, Chadee, & Pacoy, 2013; Chadee & Roxas, 2013). In Ethiopia, too, a relatively larger number of empirical studies on the role of the government and the market environment are available (e.g., Assefa, Zerfu, & Tekle, 2014; Seyoum, Aragie, & Tadesse, 2016; Gebrehiwot & Wolday, 2006; Asefa, 2001), yet only a few efforts have been made to associate the small business success with the entrepreneur's human capital or competency (e.g., Shenura, Haile, & Negash, 2016; Wondwossen, 2015). Overall, despite the belief that entrepreneur's behaviors are important for innovation and new business success (Baum et al., 2007), only a few had examined the link between business owner-managers' competency and small business performance (e.g., Sidik, 2012; Georgellis, Joyce, & Woods, 2000). It is argued that even though the focus on environment and organizational factors enhances our understanding of the entrepreneurial phenomenon, it overlooks the role of the entrepreneur's capability and actions (Shane, Locke, & Collins, 2003). A practical challenge facing us today in the developing world is that a research focus on external variables only contributed to the business-people to flee from their responsibilities and tend to blame only third parties, not having an internal locus of control. Therefore, there should be a paradigm shift from an external focus toward own actions for the success or failure of businesses.

At the individual level, prior studies have investigated, "Why some people are more successful as entrepreneurs than others?" (e.g., Markman & Baron, 2003; Mansfield, McClelland, Spencer, & Santiago, 1987). However, there seems a dearth of relevant empirical evidence on how the entrepreneur's own actions or behaviors influence small business performance.

Therefore, this paper examines the mechanism whereby the entrepreneur's personal competencies such as (1) a capacity to systematically plan ahead and monitor; (2) a capacity to seek for and manage external information; and (4) a capacity to innovate can impact business success. The belief is that these entrepreneurial competencies are key characteristics of successful entrepreneurs that enable them to convert an entrepreneurial vision into successful products or services which are able to meet or even surpass customer requirements (McClelland, 1987).

The paper tries to bridge the gap between the micro-level phenomenon (entrepreneurial behavior) and the macro-level phenomenon (firm performance), thereby responding to Frese's (2007) call for research that values the entrepreneur's behaviors as important and a starting point for studying business success. The paper explores the theory about the relationships between personal entrepreneurial competencies and firm performance. Because organizational capabilities are built on personal competencies (Cohen & Levinthal, 1990), it is important to acknowledge that the founding owner-manager plays an important role in affecting the business decision-making process and the business as a whole (Gerli, Gubitta, & Tognazzo, 2011). The study relies on the "people side" of the organization as a critical enabler of small business performance as a way to look for solutions in order to enable firms to create sustainable competitive advantages.

Small-business owner-managers with greater entrepreneurial competencies are more likely to engage in identifying and exploiting opportunities for the hunt of innovation that facilitates their success (Shane & Venkataraman, 2000). Success in business is fundamentally personal. Baum, Frese, & Baron (2007, p.1) emphasized that business success: "Takes the human vision, intention, and work to conceive and convert business ideas to successful products and services ... Through their thinking and action, entrepreneurs themselves integrate human and financial resources to organize, produce, and market products and services that yield value for customers and workers. Therefore, the entrepreneur's personal characteristics (individual differences) are the most important factors for business success – even more important than the business idea or industry setting". Therefore, SMEs with owner-managers having such competencies are innovative and well-performing.

The objective of this empirical work is to investigate to what extent SME performance can be explained by the above three entrepreneurial behaviors, that distinguish entrepreneurial people from others. The study addresses the following questions in the context of the SMEs:

- What effects do systematic planning and monitoring, and information-seeking behaviors of business owner-managers have on SMEs innovativeness?
- Is innovativeness positively related to small business performance factors?

The results of this study provide many-fold implications. The approach provides us a way to examine entrepreneurial behaviors that have long-term impacts and closer relationships to business success (Man, Lau, & Chan, 2002). It describes the link between the actions of the business owner and business success arguing that those who hold key positions in an enterprise have a significant influence on the enterprise's success or failure (Gerli et al., 2011).

The study provides an understanding of SMEs success through the lens of behavioral competencies. An organization may have the most innovative business ideas, products, or valuable assets but that *per se* may not be enough to succeed. It should have owner-managers with entrepreneurial competencies who are capable of creating a new combination of the resources in recognizing economic opportunities and realizing them into new products and businesses for the attainment of sustainable competitive advantage in the marketplace. Besides, the study would bridge the gap in the knowledge base relating to the impacts of those "people-based" resources of the firm on its outcomes in the developing world thereby expanding the small business management and development literature. Moreover, the result of the study will particularly be an important input for policymakers, planners, and academics in the Sub-Saharan Africa economies as they are still looking for workable mechanisms for developing enterprises as there is a growing realization among these countries that the future of their economy's competitiveness and growth will heavily rely on a strong private sector in which SMEs play a decisive role.

The rest of the paper proceeds as follows. Section 2 presents the theoretical framework and research hypotheses. Section 3 outlines the research methodology. In Section 4, the analysis and research results are provided. Discussion, managerial and policy implications are provided in Section 5. Finally, research limitations and future research directions are provided in Sections 6.

## **II. Literature Review and Hypothesis Development**

### **2.1. Conceptual framework**

Past research suggested that firms can compete on the basis of research and development (R&D), product, price, strategy, processes and/or systems. More emphasis has been given to the intensity of investment in R&D. However, as small firms generally lack the resources and skills, and organizational and marketing capabilities, a solution based on high investment on product research and development (R&D) is thus not feasible for small firms. Hence, a large body of research suggested that small firms ought to transform their limited resources and capabilities into innovation on the basis of entrepreneurial effectuation theory — where it is generally referred to as taking a leap at a time, not a breakthrough (Sarasvathy, 2008), or "do with resources on hand to invest only what they could afford to lose" (Dew et al., 2009, p.287), or they should systematically (step by step) innovate (Peter F Drucker, 1985), or apply the incremental innovation concept (Bhaskaran, 2006). These studies provide valuable insights on *how* small firms should create innovations, but little is known about what explains innovation, particularly in these firms.

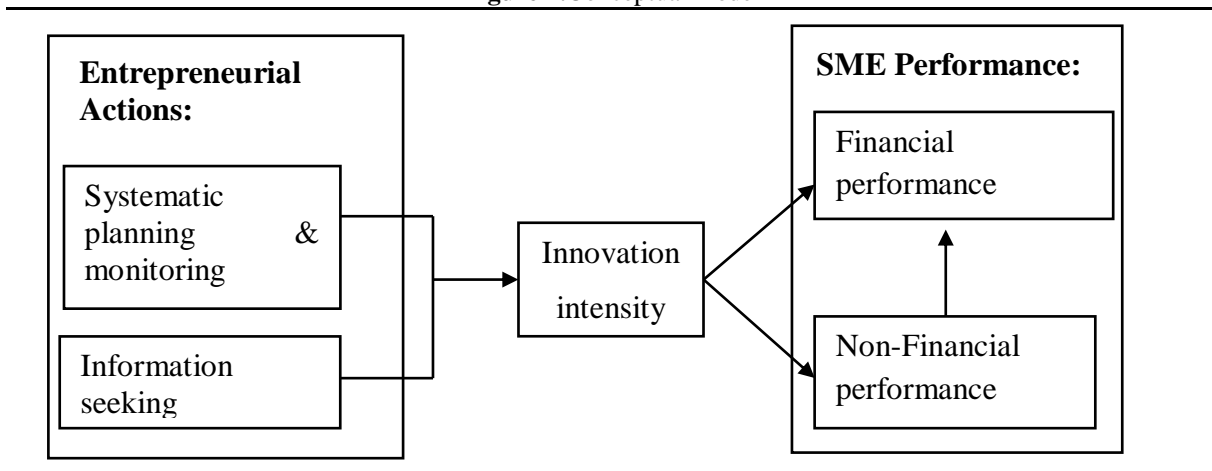
Another stream of research on the same issue argues that the traditional ways of competing merely on the basis of technology, product or price (Johannessen, Olsen, & Olaisen, 1997), strategies, processes or systems (Adegbite, Ilori, Irefin, Abereijo, & Aderemi, 2007) are no longer differential factors among the businesses as they can be readily be acquired by competitors or new entrants and may, at best, create a temporary advantage (Johannessen et al., 1997). To cope up with an increasingly dynamic and unpredictable business environment, SMEs need to re-examine and modify their competitive strategies by fully incorporating innovation within their people, processes and products, and effectively leverage their limited resources and competencies to differentiate themselves from the marketplace and improve their market position (McAdam, Reid, & Gibson, 2004). By this stream of research, more focus has been vested in the people side of the organization as a critical enabler of innovation practices (Thompson, 2004). This has been a recommended way to look for new solutions in order to improve the competitiveness of small businesses.

Researchers interested in the relationships between resources and firm performance suggest that for a resource to qualify as a source of competitive advantage, it must be valuable, rare, inimitable, and it must have no adequate substitutes (Barney, 1991; Grant, 2001). Creating sustainable competitive advantage requires firms to support the capabilities creating the advantage by the resources that are valuable, rare and not easily copied by competitors (Hart, 1995). One important resource that qualifies for creating competitive advantage is the people-based capabilities (Rose, 2014). These resources are difficult to imitate since they are embedded in business routines and processes as well within individuals and hence invisible to competitors (Winter, 1998). Johannessen et al. (1997, p.97) noted that: "as a resource, people are important not just as participants in the labor force, but as accumulators and producers of invisible assets, that help to position to exploit new opportunities, hence enhance continuous innovation". The proposition is that invisible assets, with a particular focus on personal entrepreneurial competencies, augment innovation and limit imitation and hence are one of the most important factors in explaining innovation.

It is quite important for organizations to do things better and differently in order to gain a competitive edge over competitors, and exploit new opportunities with the aim of improving overall performance throughout the business (Lowe & Marriott, 2006). Therefore, based on the Resource-Based View (RBV) theory, as an effort to examine the effect of personal entrepreneurial competencies on firm performance, a research model that directly links entrepreneurial actions to innovation and innovation to SME performance dimensions was developed as shown in Figure 1.

The model provides that entrepreneurial competencies are the way whereby the likelihood of realizing successful innovation can be enhanced (Georgellis et al., 2000). It suggests that entrepreneurial capabilities (planning and information seeking) are important to realize small business success, because they boost innovation, and it is the innovation that expedites the small business performance. Innovation requires individuals or teams possessing particular tendencies to identify and exploit business opportunities to transform the invented knowledge into economic values (Thompson, 2004). And that innovation is a key attribute of the entrepreneurial business that eventually influences firm performance. SMEs must have owner-managers who are able to search for and analyze external information and plan ahead in order to innovate successfully.

**Figure 1.** Conceptual model



On the basis of the research model developed, the following testable hypotheses are proposed.

## 2.2. Theory and Hypothesis

### 2.2.1. Systematic Planning and Monitoring

Though the focus has been on the role of strategic planning in large, established firms, past research has emphasized the importance of planning to the success of innovation (e.g., Suarez, Calvo-Mora, & Roldán, 2016; Dibrell, Craig, & Neubaum, 2014). As innovation is a risky activity, the entrepreneurs' ability to plan ahead will help them reduce the negative effect of risks on innovation and eventually on the business outcome (Georgellis et al., 2000). The challenge of improving the quality, reliability, and performance of products and services while being competitive on the price actually calls for planning and designing strategy for introducing new or better products (Adair, 2007). Any change designed to improve productivity and profitability of existing products has to be planned prior to action. This is because any innovation success is dependent on the detailed technical, market, and financial analysis prior to the development of the new product and on a well-defined product concept that can be executed as planned once the project enters development (Alexander & van Knippenberg, 2014). From the entrepreneur's point of view, owners of businesses who want to innovate their businesses need to develop a competency to plan by breaking large tasks down into smaller tasks with clear time frames to ensure easier implementation and revise the plans in light of feedback on performance or changing circumstances (Ciucan-Rusu, 2009; McClelland, 1987).

Often it is difficult to meet the changing demands of customers by simply following the plans set at prior. Always the customer preferences and demands are changing, the products mature and become obsolete, which all demanding flexibility and frequent revisions of plans. Hence, the entrepreneurs have to always be abreast to incorporate contingencies and changes in performance and the environment and to constantly adapt to a new situation or scenario (Casagrande, 2017). Individuals and organizations that do have the flexibility to modify, alter, or radically change what they are doing, can avoid organizational inertia. Dibrell et al. (2014) found that firm's formal strategic planning process and planning flexibility are positively associated with firm innovativeness. Therefore, it is proposed that:



*Hypothesis 2: Systematic planning and monitoring capability have a significant positive effect on innovation practices in SMEs.*

### **2.2.2. Information Seeking**

The human information-seeking behavior has long been acknowledged as an important part of human behavior and is an indispensable skill for surviving the environment (Brindesi, Monopoli, & Kapidakis, 2013; Pirolli, 2007). Access to various sources of information and free flow of information around establishments is important in their innovation process (Frishammar & Horte, 2005). Organizations that are able to generate innovation-related information from different internal factors and competencies such as firm's know-how, educational events for employees, initiatives from employees, trained teams of technologists or work teams, and organizational communications either organized or spontaneous communications (Varis & Littunen, 2010) and from sources in the external environment which include the technological environment, market actors (customers, suppliers and competitors) (Frishammar & Horte, 2005), networks with other firms and organizations (e.g., universities, research centres, consultant firms and experts, public departments, etc.), innovation systems and other external sources of information (e.g., Internet and other media, exhibitions, and fairs, scientific and professional literature, trade journals, educational events) (Bennett, Collinson, Edbury, Surkovic, & Wardle, 2014), and from the general environment factors (e.g., political/legal, economic, and social/cultural) (McGee & Sawyerr, 2003) are likely to be more innovative than others which do not. Such use of multiple sources of information is often beneficial for innovation because of complementarities and synergies between various information sources. Hence, knowledge generated in-house and from external information are not substitutes but complements (Cohen & Levinthal, 1990). On the basis of the foregoing discussions, a hypothesis is proposed as:

*Hypothesis H2: Information seeking behavior has a positive significant effect on innovation activities in SMEs.*

### **2.2.3. Innovation**

The primary objective of any business organization is the attainment of company goals and objectives related to profitability and growth in sales and market share, as well as the realization of general firm strategic objectives (Hult, Hurley, & Knight, 2004). But those firms wishing to attract and increase the number of customers and thereby making more profit should achieve two fundamental goals: innovation and marketing (Drucker, 1974). These two are amongst key characteristics of entrepreneurial firms which drive the success of today's knowledge-based economy where the SMEs constitute a central component (Yen, 2013).

SMEs, with their dynamism, adaptability, and flexibility play a key role in an innovative economy (Lee & Newton, 2000). Such close links between innovation and business performance in SMEs have aroused increasing interest amongst academics, policymakers and practitioners in the last two decades. Past research has considered innovation as an all-purpose prescription (e.g., Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro, & Kumar, 2018; Audretsch, Coad, & Segarra, 2014) for the success of organizations in the marketplace. It has been recognized as the "Holy Grail" for many establishments (Alexander & van Knippenberg, 2014, p.423), the "lifeblood of corporate survival and growth" (Zahra & Covin, 1994, p.183).

Innovation as an implementation of: (a) product innovation — introduction of a new product or a new species of already known product; (b) process innovation — improving the process of production or sales of a product; (c) market innovation — opening new markets (the market for which a product has not been made familiar and in which it is not produced); (d) means of production innovation — acquiring of new and cheaper sources of supply for a means of production; and (e) organization innovation — developing new structures, systems, or procedures have been considered as critical for business success (Schumpeter, 1934). On the same token, Drucker (1985) has considered the practice of innovation as a specific device for successful entrepreneurs whereby they exploit change as an opportunity for a different business or a different product and service. To ensure survival and maintain growth enterprises must strive to do things differently and better in order to differentiate their offer from those of the competitors in the minds of the customers and clients. This way they can gain comparative advantage and so maintain the loyalty and support of their stakeholders. Many organizations are initially established as a result of some kind of innovation whether the initial idea is new to the world or rather more mundane efficiency improvement. As such innovation is considered as an essential element in business success. Therefore, on the basis of these findings, it is proposed that:

*Hypothesis 3a: Innovation has a significant positive effect on financial SME performance.*

*Hypothesis 3b: Innovation has a significant positive effect on non-financial SME performance.*

### **2.2.4. SME Performance**

SME performance has been a central phenomenon in business studies. It refers to an organization's capability to generate pleasing outcomes and actions. Specifically, it may refer to the attainment of company goals and objectives related to profitability and growth in sales and market share, as well as the achievement of

organizational long-term objectives (Hult et al., 2004). In addition to the firm's success in the market, business success can also be seen as the attainment of the founder's personal desires from business earnings (Nur & Zulkifli, 2014).

SME performance is considered as a multidimensional concept represented by financial and non-financial performance dimensions used in prior research. The association between strategic performance objectives and financial performance is theoretically specified in the literature (e.g., Chen, Tsou, & Huang, 2009; Davis & Albright, 2004; Kaplan & Norton, 2005), suggesting that superior financial performance is likely to be the result of the achievement of non-financial performance benefits, such as occupying marketplace positions of competitive advantage. Success must be achieved on key non-financial measures such as high customer loyalty and a positive image and reputation and attract new customers better than organizations that do not prior to realizing success on key financial measures (Davis & Albright, 2004; Chen et al., 2009). Therefore, it is specified as:

*Hypothesis 4: Non-financial performance has a positive effect on financial performance.*

### 2.2.5. The Mediation Effects of Innovation

The discussion so far on our literature review, supports our mediation model. That is, theoretically two conditions have been met: (a) a positive set of relationships between the exogenous variables (systematic planning and information seeking) and the mediator variable (innovation), and (b) a positive relationship between the mediator (innovation) and the outcome variable (SME performance) (Baron & Kenny, 1986). The mediational model involves the inputs (entrepreneurial competencies), a process (innovation), and an output (business performance). Through the process of innovation, these resources can be used to develop innovation outputs (e.g., new products, services, markets, material supply, or work methods) that would enable a firm to attain superior strategic and financial performance (Chen et al., 2009; Grant, 1991; Hadjimanolis, 2000). And innovation, in turn, is thought to be a significant predictor of small business performance. Hence, it is proposed that:

*Hypothesis 5: Innovation mediates the relationships between entrepreneurial competencies and firm performance, i.e., between (i) systematic planning and financial performance; (ii) systematic planning and non-financial performance; (iii) information seeking and financial performance; and (iv) information seeking and non-financial performance.*

## III. Research Methods

### Sample and Data Collection

This study is a cross-sectional enterprise-based study conducted in a field-setting across various sub-sectors of SMEs operating in three purposively selected cities, Bahir Dar, Gondar, and Debre Markos, Amhara Region, Ethiopia. A sample of 505 SME owner-managers with fewer than 50 employees was taken from the Regional Technic, Vocation and Enterprises Development Office (TVEDO) in February 2018.

The study addressed a broad range of sectors in manufacturing, construction, urban agriculture, trade or commerce and service aimed to increase the external validity of the research findings. The level of analysis was the SME owner-managers or chairpersons in case of cooperatives participated in the study. Presumably, these people are believed to have good knowledge and expertise pertaining to their own establishments' operations, strategic directions, and overall firms' operational activities lending more accurate responses to the research questions.

A structured self-administered questionnaire was used for data collection (see the Appendix). Four hundred seventy-three (473) questionnaires were returned filled demonstrating 93.6 percent rate of return. However, the data screening activities resulted in the removal of 11 cases from 473 sample of respondents in our dataset due to the missing values in the survey (Tabachnick, Fidell, & Ullman, 2013) leaving a usable sample of 462 SME founder-owners for research analysis (see Table 1). This sample is considered as sufficient enough for testing the overall model using multivariate techniques, such as CFA and SEM (Hair, Black, Babin, & Anderson, 2010; Malhotra, 2010).

**Table 1.** Respondents' characteristics and business profile

| Respondent profile         |     |         | Firm profile               |     |         |
|----------------------------|-----|---------|----------------------------|-----|---------|
| <b>Respondent's Gender</b> |     |         | <b>Sector of Operation</b> |     |         |
| Frequency                  |     | Percent | Frequency                  |     | Percent |
| Male                       | 354 | 76.6    | Manufacturing              | 279 | 60.4    |
| Female                     | 108 | 23.4    | Construction               | 50  | 10.8    |
| Total                      | 462 | 100.0   | Urban agriculture          | 34  | 7.4     |
| <b>Respondent's Age</b>    |     |         | Trade or commerce          | 40  | 8.7     |
| Frequency                  |     | Percent | Services                   | 59  | 12.8    |
| Ages 20 to 30              | 120 | 26.0    | Total                      | 462 | 100.0   |
| Ages 31 to 40              | 248 | 53.7    | <b>Firm's Age</b>          |     |         |

|                                 |     |         |                            |     |         |
|---------------------------------|-----|---------|----------------------------|-----|---------|
| Ages 41 to 50                   | 71  | 15.4    | Frequency                  |     | Percent |
| Ages 51 to 60                   | 17  | 3.7     | 2 to 3 years               | 150 | 32.5    |
| Ages 61 and above               | 6   | 1.3     | 4 to 5 years               | 175 | 37.9    |
| Total                           | 462 | 100.0   | 6 to 7 years               | 92  | 19.9    |
| <b>Level of Education</b>       |     |         | 8 to 9 years               | 34  | 7.4     |
| Frequency                       |     | Percent | 10 years and above         | 11  | 2.4     |
| No formal education             | 6   | 1.3     | Total                      | 462 | 100.0   |
| 8 <sup>th</sup> grade complete  | 31  | 6.7     | <b>Number of Employees</b> |     |         |
| 10 <sup>th</sup> grade complete | 104 | 22.5    | Frequency                  |     | Percent |
| 12 <sup>th</sup> grade complete | 60  | 13.0    | 6 to 10 people             | 209 | 45.2    |
| University/college educ.        | 261 | 56.5    | 11 to 15 people            | 161 | 34.8    |
| Total                           | 462 | 100.0   | 16 to 35 people            | 67  | 14.5    |
|                                 |     |         | 36 to 49 people            | 10  | 2.2     |
|                                 |     |         | 50 and above               | 15  | 3.2     |
|                                 |     |         | Total                      | 462 | 100.0   |

## Measures

The measurement scales were adopted from prior research to measure the following constructs under study:

### *Entrepreneurial competencies (Predictors)*

Measurements for planning and monitoring and information seeking were adopted from the standard Personal Entrepreneurial Competencies (PECs) self-assessment questionnaire which was developed and refined by the collaboration of the Management Systems International (MSI) the USA, and McBer & Company (see Mansfield et al., 1987). The PEC is a standard list of questions which enables us to differentiate the strength of one's capability to engage in entrepreneurial activity (McClelland, 1987). Systematic planning and monitoring (SPM) was measured with five statements (SPM1 to SPM5) and yielding a Cronbach alpha of 0.961; and information seeking (IS) was measured using six statements (IS1 to IS6), with a Cronbach alpha of 0.929. Each statement was scaled on a 5-point Likert-type ordinal scale, where 5 is anchored as "always true" and 1 is "never true".

### *Innovation (INNV)(endogenous/mediator)*

On the basis of Schumpeter's (1934) taxonomy of innovation, seven-item scales were used to measure small business innovation— where five items were adopted from Yan and Yan (2013) which were initially used by Kickul and Gundry (2002), and the rest two items were adopted from Yen (2013) to tap the incremental aspect of innovation in the firms. The owners of the small businesses were asked to indicate to what extent their business has been engaged in the seven listed types of innovation (INNV1 to INNV7): (1) introduction of new products/services; (2) introduction of new production methods; (3) opening of new markets; (4) introduction of new marketing or sales methods; (5) improving existing products/services; and (6) improving the existing process of production or sales of a product, and (7) acquiring a new and cheaper source of supply for a means of production. Items were rated on a 5-point Likert scale anchored by 1 means "none" and 5 means "to a great deal". The Cronbach alpha was 0.901.

### *SME performance dimensions (outcome variables)*

Because SMEs often are not willing to divulge objective figures, such as the amount of profit and even the actual figures are hardly found in SMEs, due to they lack the habit to keep records of financial matters for decision-making and the human resource necessary to establish performance standards, self-rating subjective measures were used to determine firm performance in the study. Indeed, though criticized by some, the subjective measures were found equally valid to objective measures (Nur & Zulkiffli, 2014; Wall et al., 2004). Using a self-rating subjective measure has been common in many SMEs studies, too (Chandler & Jansen, 1992; Chen et al., 2009; Flatten, Greve, & Brettel, 2011).

Business performance measures were adopted from Chen et al. (2009) and extended by adding a few items from Orser and Riding (2003). Financial performance (FP) was measured using five items (FP1 to FP5) which were stated in terms of profitability, market share and sales growth objectives, and overall performance in comparison to their competitors. They reflect whether a firm could enhance sales and profitability and exceed market share objectives; and whether the owner generated income to acquire personal properties (e.g., house or car). The Cronbach alpha was 0.892. The non-financial performance (NFP) was measured using five non-financial items (NFP1 to NFP5), e.g. whether the firm could increase its market acceptance, customer loyalty, attract new customers, etc., with a Cronbach alpha 0.908. The response options for all the items on the performance criteria (both financial and non-financial) were on a 5-point scale, ranging from 1 "strongly disagree" to 5 "strongly agree".

#### IV. Analysis and Results

##### *Exploratory Factor Analysis (EFA)*

AMOS v.23 and SPSS v.24 were used for data analysis in the study. EFA has been used in the study to verify the variables which made up the scales (Tabachnick et al., 2013). The analysis procedure with Maximum Likelihood extraction and Promax rotation with Kaiser Normalization method has resulted in five factors, INNV, SPM, IS, NFP and FP as expected. As shown in Table 2, all 28 of the scale items loaded on five factors having 0.90 Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity ( $\chi^2 = 10210.787$ ; degree of freedom = 378,  $p < 0.001$ ). The KMO measure of sampling adequacy value  $> 0.6$  shows that data is appropriate for conducting EFA and a significant ( $p < 0.05$ ) value of Bartlett's test of Sphericity indicates that the correlation matrix is different from an identity matrix (Hair et al., 2010). The eigenvalue for each factor was greater than 1.00 confirming that each of the five factors is appropriate to form separate component (Field, 2013). Moreover, all the factors cumulatively accounted for 67.76% of the total variance (see Table 2). Hence, all the index values obtained indicate that the minimum is achieved for good EFA (Tabachnick et al., 2013).

The factor analysis solution indicated that convergent validity was established since all of the items heavily loaded on their respective factor with factor loadings greater than 0.5 (ranging between 0.528 and 0.930) with higher communalities ranging between 0.342 and 0.886. The EFA solution also established discriminant validity since there were no major cross-loadings in the rotated solution as well as the Pearson correlation values between the constructs were lower than 0.7 (Hair et al., 2010) (see Table 3). The data, therefore, is suitable for the CFA and SEM analysis because these techniques require high reliability and validity for each factor in the study (Kline, 2011).

**Table 2.** Exploratory Factor Analysis (n= 462)

|                | Innovation<br>(INNV) | Systematic<br>planning<br>(SPM) | Information<br>Seeking (IS) | Non-financial<br>performance<br>(NFP) | Financial<br>Performance (FP) |
|----------------|----------------------|---------------------------------|-----------------------------|---------------------------------------|-------------------------------|
| Cronbach alpha | 0.901                | 0.961                           | 0.929                       | 0.908                                 | 0.892                         |
| Eigenvalue     | 7.580                | 5.133                           | 3.097                       | 2.917                                 | 1.804                         |
| % of Variance  | 22.423               | 19.422                          | 11.343                      | 9.164                                 | 5.408                         |
| Cumulative %   | 22.423               | 41.845                          | 53.187                      | 62.352                                | 67.760                        |
| SPM1           |                      | 0.878                           |                             |                                       |                               |
| SPM2           |                      | 0.902                           |                             |                                       |                               |
| SPM3           |                      | 0.930                           |                             |                                       |                               |
| SPM4           |                      | 0.915                           |                             |                                       |                               |
| SPM5           |                      | 0.927                           |                             |                                       |                               |
| IS1            |                      |                                 | 0.759                       |                                       |                               |
| IS2            |                      |                                 | 0.833                       |                                       |                               |
| IS3            |                      |                                 | 0.862                       |                                       |                               |
| IS4            |                      |                                 | 0.908                       |                                       |                               |
| IS5            |                      |                                 | 0.811                       |                                       |                               |
| IS6            |                      |                                 | 0.792                       |                                       |                               |
| INNV1          | 0.762                |                                 |                             |                                       |                               |
| INNV2          | 0.814                |                                 |                             |                                       |                               |
| INNV3          | 0.827                |                                 |                             |                                       |                               |
| INNV4          | 0.815                |                                 |                             |                                       |                               |
| INNV5          | 0.842                |                                 |                             |                                       |                               |
| INNV6          | 0.585                |                                 |                             |                                       |                               |
| INNV7          | 0.612                |                                 |                             |                                       |                               |
| FP1            |                      |                                 |                             |                                       | 0.528                         |
| FP2            |                      |                                 |                             |                                       | 0.669                         |
| FP3            |                      |                                 |                             |                                       | 0.917                         |
| FP4            |                      |                                 |                             |                                       | 0.924                         |
| FP5            |                      |                                 |                             |                                       | 0.762                         |
| NFP1           |                      |                                 |                             | 0.778                                 |                               |
| NFP2           |                      |                                 |                             | 0.713                                 |                               |
| NFP3           |                      |                                 |                             | 0.920                                 |                               |
| NFP4           |                      |                                 |                             | 0.886                                 |                               |
| NFP5           |                      |                                 |                             | 0.766                                 |                               |

Notes: Extraction Method: Maximum Likelihood.; Rotation Method: Promax rotation with Kaiser Normalization



**Table 3.** Correlation Analysis

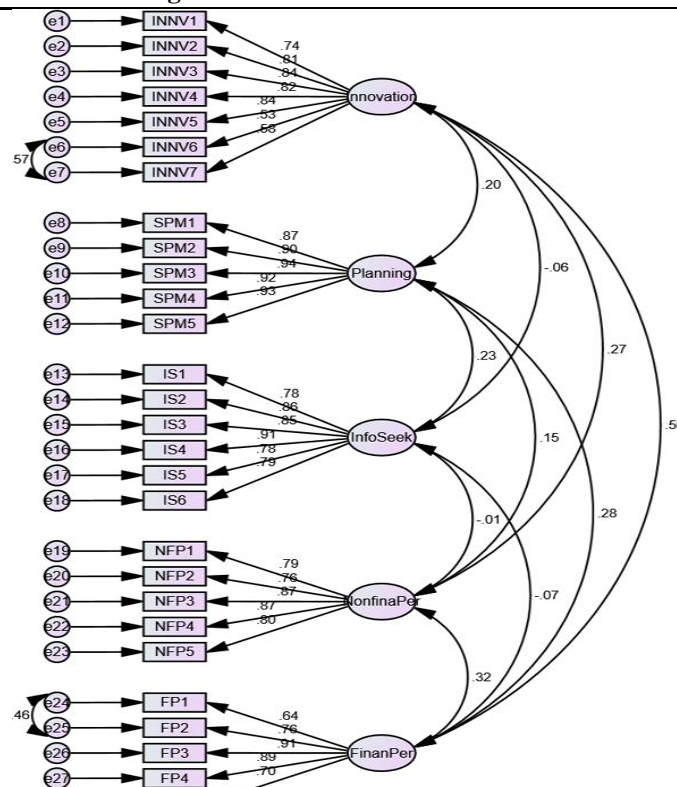
|  | Mean | Std. Deviation | IS     | SPM    | INNV   | FP     | NFP  |
|--|------|----------------|--------|--------|--------|--------|------|
| Information seeking (IS)               | 3.61 | 0.56           | 1.00   |        |        |        |      |
| Systematic planning & monitoring (SPM) | 2.57 | 1.02           | .243** | 1.00   |        |        |      |
| Innovation (INNV)                      | 2.80 | 0.87           | 0.07   | .210** | 1.00   |        |      |
| Financial performance (FP)             | 2.27 | 0.68           | 0.07   | .300** | .606** | 1.00   |      |
| Non-financial performance (NFP)        | 3.01 | 0.81           | 0.02   | .159** | .290** | .346** | 1.00 |

\*\*Correlation is significant at the 0.01 level (2-tailed).

**Confirmatory Factor Analysis (CFA)**

The CFA using AMOS with five latent factors representing 28 observed variables was undertaken to evaluate the validity of the measurement model (see Figure 2). To evaluate the construct reliability and validity various indexes such as construct reliability index (C.R.), average variance extracted (AVE), maximum shared square variance (MSV), McDonald’s Construct Reliability (MaxR(H)) and standardized factor loadings were estimated as suggested by Hair et al. (2010) (see Table 4). The construct reliabilities (C.R.) values were far above the recommended value of 0.70, and the C.R. > AVE, and the AVE values > 0.50 verifying good convergent validity of all the constructs (Byrne, 2016). The measure of the relation between the latent factor and its observed variables, the MaxR(H) values were also greater than the recommended threshold, i.e., 0.7 (Adil & Hamid, 2017). In addition, the AVE values were greater than the MSV values, and the square roots of AVE values (boldfaced values on the diagonal) were greater than the inter-construct correlations providing evidence of good discriminant validity (Hair et al., 2010; Byrne, 2016). Hence, all the above estimates show that there was no concern about the validity and reliability of the measurement model (Fornell & Larcker, 1981).

**Figure 2.** CFA measurement model



**Table 4.** CFA Model: Reliability and Validity

| Construct                  | CR    | AVE   | MSV   | MaxR(H) | INNV         | SPM          | IS           | NFP          | FP          |
|----------------------------|-------|-------|-------|---------|--------------|--------------|--------------|--------------|-------------|
| Innovation (INNV)          | 0.897 | 0.56  | 0.315 | 0.917   | <b>0.748</b> |              |              |              |             |
| Systematic Planning (SPM)  | 0.961 | 0.832 | 0.08  | 0.964   | 0.198        | <b>0.912</b> |              |              |             |
| Information seeking (IS)   | 0.929 | 0.686 | 0.053 | 0.937   | 0.064        | 0.231        | <b>0.828</b> |              |             |
| Nonfinal Performance (NFP) | 0.909 | 0.667 | 0.102 | 0.915   | 0.267        | 0.154        | 0.012        | <b>0.817</b> |             |
| Financial Performance (FP) | 0.888 | 0.618 | 0.315 | 0.921   | 0.561        | 0.283        | 0.07         | 0.319        | <b>0.79</b> |

Notes: CR = Composite Reliability; AVE = Average Variance Extracted; MSV = Maximum Shared Variance; MaxR(H) = McDonald (Omega) Construct Reliability.

**Table 5.** CFA Measurement Model Fit Summary

| Index                                | Threshold  | Thresholds are referred in:   | Current model                            |
|--------------------------------------|--|---|--|
| <b>Chi-square</b><br>( $\chi^2$ )    | p-value for the model > 0.05   | (Byrne, 2016)   | $\chi^2$ (df= 338)<br>=670.017; p = .000 |
| <b>Cmin/df</b> or<br>( $\chi^2/df$ ) | ≤ 3 good; ≤ 5.0 acceptable   | (Kline, 2011; Hooper et al., 2008; Hair et al., 2010)                     | 1.982                                    |
| <b>GFI</b>                           | ≥ 0.95; ≥ 0.9 (for large samples)  | (Hooper et al., 2008; Hair et al., 2010)                                  | 0.905                                    |
| <b>SRMR</b>                          | = 0 (perfect fit); ≤ 0.05 (well-fitting); ≤ 0.08 (good); ≤ 0.1 (permissible) | (Byrne, 2016; Hooper et al., 2008; Hu & Bentler, 1999; Hair et al., 2010) | 0.0477                                   |
| <b>RMSEA</b>                         | ≤ 0.05 (well-fitting); 0.05 – 0.08 (good fitting) 0.08 – 0.1 (permissible)   | (Hu & Bentler, 1999; Kline, 2011; Hooper et al., 2008; Byrne, 2016)       | 0.046                                    |
| <b>TLI</b>                           | ≥ 0.95 (better fit) ≥ 0.90 (acceptable fit)                                  | (Byrne, 2016; Kline, 2011; Hair et al., 2010; Hooper et al., 2008)        | 0.963                                    |
| <b>CFI</b>                           | ≥ 0.95 (better fit) ≥ 0.90 (acceptable fit)                                  | (Byrne, 2016; Kline, 2011; Hair et al., 2010; Hooper et al., 2008)        | 0.967                                    |
| <b>PCLOSE</b>                        | > 0.05   | (Hu & Bentler, 1999; Gaskin, 2017)  | 0.890                                    |

To evaluate the measurement model fitness, many fit indexes were estimated using AMOS. The CFA model yielded a good model fit meeting the threshold index values suggested in the current literature (see Table 5).

**Consideration of Common Method Variance (CMV)**

As the data for all the variables were collected from a single respondent using only one method, we assessed if there was any influence of common method variance in the dataset using Harman’s single factor and common latent factor tests. Assessment of CMV is important as a study without the assessment of CMV often results in biased reports (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Hence, Harman’s unrotated single-factor solution for all of the 28 items showed that the extraction sums of squared loading showed that only 18.751% of the variance (far less than 50%) is attributed to a single factor, indicating that common method bias is not a major issue in the data (Podsakoff et al., 2003). But because Harman’s single factor test is considered as an outdated and inferior approach, a more accurate test of common method variance, CFA with CLF, was conducted to determine the influence of the common method bias on our measurement. A comparison was made between the standardized regression weights of the CFA model with CLF and the standardized regression weights of the model without the CLF. The maximum difference found was < 0.20 indicating that no concern of common method bias in the dataset (Gaskin, 2012). Hence, both methods indicated that the measurement model is operating adequately and can be used to assess the hypothesized structural model.

**Hypothesis Testing Through Structural Equation Model (SEM) Analysis**

According to Byrne (2016), the central point in analyzing structural models is the evaluation of the degree to which the hypothesized model “fits” or adequately describes the sample data. As such, the model fit was evaluated by examining several model-fit indices including CMIN/DF =  $\chi^2/df$ , GFI, TLI, CFI, SRMR, RMSEA, and PCLOSE as recommended in the literature (Byrne, 2016; Hair et al., 2010; Hu & Bentler, 1999) (see Table 6). Besides to fit statistics, the effect of one variable on another was assessed as indicated by the standardized regression estimate ( $\beta$ ), with a significance level set at  $p < 0.05$ . The structural model for SME performance is shown in Figure 3.

Figure 3. Structural Model for SME Performance (Direct Effects)

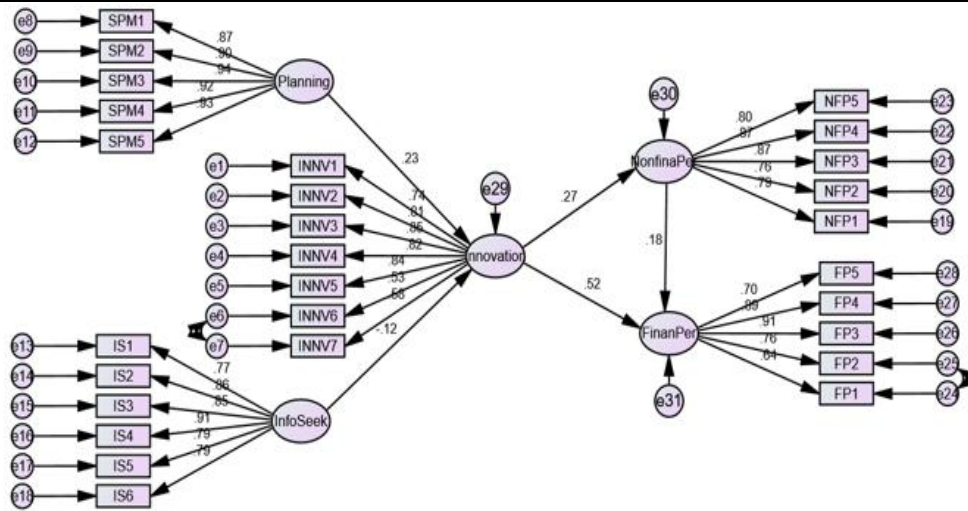


Table 6. Structural Model Fit Summary

| Measure                     | Threshold limit                  | Current Model                      |
|-----------------------------|----------------------------------|------------------------------------|
| Chi-square ( $\chi^2$ )     | p-value for the model > 0.05     | $X^2$ (df= 338) =670.017; p = .000 |
| Cmin/df) or ( $\chi^2$ /df) | ≤ 3 good; ≤ 5.0 acceptable       | 1.982                              |
| GFI                         | > 0.90 good                      | 0.905                              |
| SRMR                        | < 0.08 good; < 0.1 acceptable    | 0.0477                             |
| RMSEA                       | < 0.05 well fitting; < 0.08 good | 0.046                              |
| TLI                         | ≥ 0.95 better; ≥ 0.90 acceptable | 0.963                              |
| CFI                         | ≥ 0.95 better; ≥ 0.90 acceptable | 0.967                              |
| PCLOSE                      | > 0.05                           | 0.890                              |

Table 7. Direct Relationships between Constructs

| Hypothesis (Path) | Unst. $\beta$ | S.E. | C.R.  | Evidence    | Result    |
|-------------------|---------------|------|-------|-------------|-----------|
| SPM → INNV (A)    | .209          | .045 | 4.657 | .238(0.000) | Supported |
| IS → INNV (B)     | .191          | .080 | 2.374 | .121(0.018) | Supported |
| INNV → NFP (C)    | .250          | .048 | 5.217 | .269(0.000) | Supported |
| INNV → FP (D)     | .403          | .045 | 8.896 | .517(0.000) | Supported |
| NFP → FP          | .151          | .039 | 3.889 | .180(0.000) | Supported |

Notes: Decimal numbers on the evidence column represent standardized regression estimates, and the values in the parenthesis represent the level of significance (P-values); SPM = systematic planning & monitoring; INNV = innovation; IS = information seeking; NFP= non-financial performance; and FP = financial performance.

Table 7 shows the results of the analysis of the direct relationships between the constructs of the study. All the direct relationships were found to be statistically significant that one strongly predicts the other. Specifically, both entrepreneurial competencies — systematic planning and monitoring (SPM) and information seeking (IS) were perceived to be strong predictors of innovation in SMEs at least under the study context with statistical significance values ( $\beta = 0.238, p = 0.000$ ;  $\beta = 0.121, p = 0.018$ , respectively). Hence, hypotheses 1 and 2 are statistically supported. Innovation is positively related to both financial and non-financial SME performance dimensions ( $\beta = 0.517, p = 0.000$ ;  $\beta = 0.269, p = 0.000$ , respectively), indicating that it strongly predicts small firm success or performance, supporting hypotheses 3a and 3b. Finally, the achievement of the firm’s strategic objectives inevitably leads to superior financial performance as indicated by ( $\beta = 0.180, p = 0.000$ ), leading to the support of hypothesis 4.

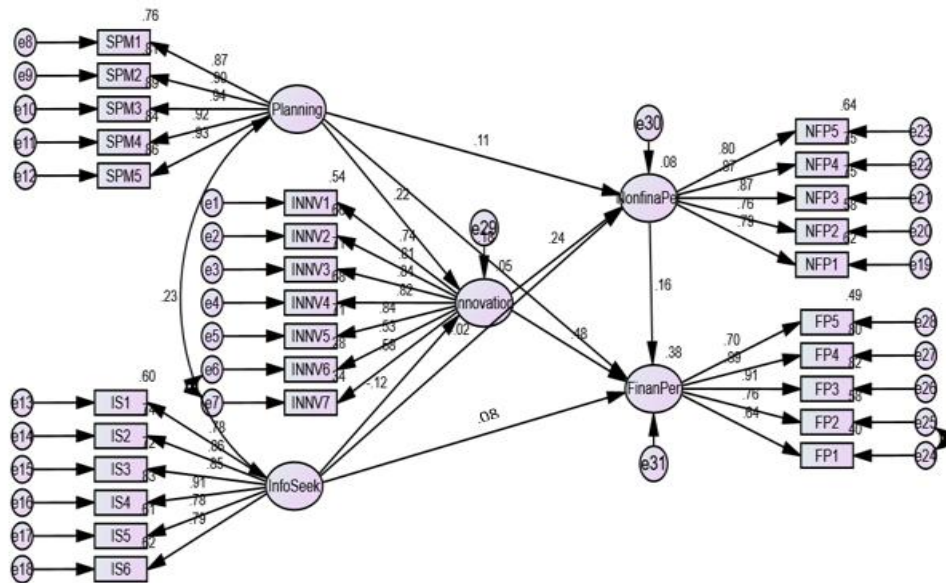
**Mediation analysis through AMOS Bootstrapping**

Our structural model also allows us to test whether planning and information-seeking competencies can only be related to firm performance through innovation or can have supplementary direct effects on firm performance (see Figure 4).

To test the mediation hypotheses, the direct effects between SPM and INNV (path A) ( $\beta = 0.238, p = 0.000$ ); between IS and INNV (path B) ( $\beta = 0.121, p = 0.018$ ); between INNV and NFP (path C) ( $\beta = 0.269, p = 0.000$ ); and between INNV and FP (path D) ( $\beta = 0.517, p = 0.000$ ), were tested.

=0.000); and between INNV and FP (path D) ( $\beta = 0.517, p = 0.000$ ) are statistically significant, hence, mediation can be analyzed (Baron & Kenny, 1986). The significance of the direct and indirect effects was estimated using the Bootstrapping technique with 95 percent bias-corrected confidence and 2,000 bootstrap samples in AMOS (Gaskin, 2015) (see Table 8). The analysis results show that innovation fully mediates the relationships between information seeking (IS) and SME performance dimensions (FP and NFP). This is because only the indirect path coefficients are statistically significant though the magnitude of effects seems to be very low ( $IS \rightarrow INNV \rightarrow FP: \beta = 0.063, p = 0.024$ ;  $IS \rightarrow INNV \rightarrow NFP: \beta = 0.028, p = 0.015$ ). Hence, this finding confirmed hypothesis 4 (iii), *innovation mediates the relationship between information seeking and financial performance*, and (iv) *innovation mediates the relationship between information seeking and non-financial performance*.

Figure 4. Direct and Indirect Effect Analysis (Model)



However, innovation has only partial mediation or complementary mediation (X. Zhao, Lynch, & Chen, 2010) between systematic planning and monitoring (SPM) and SME performance dimensions (FP and NFP). Both the direct and indirect paths are statistically significant with relatively stronger direct path coefficient estimates ( $\beta = 0.182, p = 0.001$ ) than the indirect ones ( $\beta = 0.134, p = 0.000$ ). This means that systematic planning and monitoring behavior affects firm performance both directly and indirectly through innovation. Hence, the hypotheses 4 (i) and (ii) were partially supported.

Table 8. Mediation Analysis

| Relation (path)  | Direct and Indirect effect analysis |                               |                                   |
|------------------|-------------------------------------|-------------------------------|-----------------------------------|
|                  | Direct effect (Xi → Yi)             | Indirect effect (Xi → M → Yi) | Result                            |
| SPM → INNV → FP  | 0.182(0.001)                        | 0.134 (0.000)                 | Partial mediation (complementary) |
| SPM → INNV → NFP | 0.110(0.022)                        | 0.055(0.000)                  | Partial mediation (complementary) |
| IS → INNV → FP   | 0.079(0.061)                        | 0.063(0.024)                  | Full mediation                    |
| IS → INNV → NFP  | 0.022(0.685)                        | 0.028(0.015)                  | Full mediation                    |

*Notes: Significance of direct and indirect effects were estimated based on 2,000 bootstrap samples. The P-values are shown in the parenthesis. Direct and indirect (mediating effects) are shown in three decimal points.*

### V. Discussion and Implications

In this study, the financial performance was measured through growth in sales, market share, and profitability, whereas the non-financial performance was measured using customer loyalty, competitive advantage, attracting new customers, perceived image and reputation. While these performance measurement categories are known as the business professionals’ model of small business success (Bridge, O’Neill, & Cromie, 1998), they are criticized because of failing to capture if the owner is achieving satisfaction or attaining his personal goals from the business. To fill this gap, the present study added a measure of achievement of the founder’s personal desires from business earnings such as the acquisition of personal goods (e.g., a house or car).

The objective of the study was to investigate the direct effects of systematic planning (SPM) and information seeking (IS) on innovation (INNV) as well as the direct effect of innovation on SME performance



dimensions (FP and NFP). Yet these series of relationships among the constructs also allowed us to test whether systematic planning and information-seeking competencies could have direct complementary effects on firm performance. Stated differently, both direct and indirect effects (mediating effects) have been estimated through innovation on firm performance dimensions. Moreover, the link between a firm's non-financial and financial performance was also established.

The study sheds new lights on the impact of SME owner-managers' personal behaviors on firm performance. The framework of the study is built on the premise that founding-manager behavioral actions, viz., systematic planning and information seeking are important for small business performance, because these competencies encourage innovative activities (e.g., product, service, process, market, etc.), which in turn encourage small business performance.

The structural equation modeling analysis resulted in the research findings which are relevant for practice and research. The analysis suggested that systematic planning and information-seeking entrepreneurial competencies are strong predictors of innovative activities in SMEs. Planning is an essential recipe for the success of innovations in organizations. This is because any innovation success is dependent on the detailed technical, market, and financial analysis prior to the development of the new product and on a well-defined product concept that can be executed as planned once the project enters development (Alexander & van Knippenberg, 2014). Planning helps firms to reduce the risks that would come associated with innovative activities. This finding corroborates the previous researches (e.g., Suarez et al., 2016; Taylor & Wright, 2003).

Similarly, the results of the present study shown that information-seeking behavior has a strong positive significant effect on innovative activities in small firms. This finding confirms the prior research findings (e.g., Flatten et al., 2011; Varis & Littunen, 2010; Robson & Bennett, 2000), suggesting that firms which generate information from multiple sources such as customers, suppliers, competitors and from the general environment are more likely to be innovative than which do not.

In turn, innovation is found to be a strong predictor for SMEs performance (for the achievement of both financial and non-financial performance objectives). This finding confirms the majority of the extant literature (e.g., Arunachalam et al., 2018; Maldonado-Guzmán et al., 2018; Omri et al., 2015; Georgellis et al., 2000). Moreover, the findings of the study established a positive relationship between the firm's non-financial and financial performance dimensions. The achievement of strategic business objectives positively predicts financial performance objectives (Chen et al., 2009; Davis & Albright, 2004) (see Table 7).

Simultaneous analysis of the direct and indirect relationships between entrepreneurial competencies (planning and information seeking) and firm performance has also resulted in interesting findings. The findings have shown that systematic planning and monitoring competency is a significant predictor of financial and non-financial SME performance. An increase in this variable leads to greater achievement of strategic performance objectives and profitability in SMEs. The result is consistent with the findings of extant literature (Peake, McDowell, Harris, & Davis, 2018; Gibson & Cassar, 2005; Delmar & Shane, 2003; Mazzarol, 2001). In addition, the mediation analysis suggested that systematic planning enhances SME performance indirectly through the mediation of innovation. This variable explains some amount of variation in SME performance through the mediation of innovation to complement its direct effect on SME performance.

The mediation analysis results also suggested that the relationships between information seeking and SME performance dimensions were fully mediated by innovation. Information seeking behavior is important for small business success but primarily as an input for the generation of various innovation activities in firms (see Table 8).

The success of SMEs is a central phenomenon for research and policymakers due to the fact that SMEs play a vital role in the healthy functioning of an economy. However, though small firms enjoy greater flexibility than large firms, their resources and skills are limited, and they lack the organizational and marketing capabilities of large firms. In consequence, it has been highlighted that small firms generally undertake fewer innovation projects (Berends et al., 2014). Ever-Increasing globalization has also posed new challenges for small organizations (McAdam et al., 2004). They are facing pressures from large-scale enterprises in that their niche markets which were once the preserve of SMEs are being targeted by large organizations (Ndubisi & Iftikhar, 2012). And such pressure is particularly stronger in less-developed countries wherein the marketplace international organizations are dumping their products and services, while indigenous SMEs are traditionally relying more on local markets and now find themselves ill-equipped to face market challenges of the need for growth and exports in a highly competitive environment (Baregheh, Rowley, & Sambrook, 2009). As such, the results of the present study can be used as an important input to devise specialized support services for the enhancement of business owner-managers' innovative competencies (planning ahead and monitoring, information seeking and innovativeness).

The findings of the present study well suggest that entrepreneurial competencies are vital to realizing small business performance or success, for they boost innovation, and it is the innovation that enhances the competitiveness of the SMEs. The positive relationships between personal entrepreneurial competencies and



innovation in small firms provide a good insight that innovation does not occur spontaneously. It requires individuals or teams possessing particular tendencies to identify and exploit business opportunities to transform the invented knowledge into economic values. It is the motivated, skilled and knowledgeable entrepreneurs (owners and their staffs) who are capable of innovating their businesses (Thompson, 2004; F. Zhao, 2005).

Entrepreneurial innovation occurs because people act to pursue opportunities (Shane et al., 2003). The extent to which the SMEs will innovate successfully depends on their capacities on a number of entrepreneurial capability domains: to set goals and plan ahead, search for market and product information, and establish businesses or develop products and services, improve processes, etc. (Mansfield et al., 1987; Georgellis et al., 2000). Through the process of innovation, these resources can be leveraged to develop innovative practices as a source of incessant competitive advantage to produce superior strategic and financial performance (Chen et al., 2009; Grant, 2001). The extent to which the SMEs achieve above average return is determined by their innovations and their capacity to implement innovation strategies. SMEs with better capacity to innovate when pooled with competencies and resources are more effective in responding to their environments and developing new capabilities which lead to competitive advantage resulting in superior financial performance (Hurley & Hult, 1998). Hence, the higher level of entrepreneurial competencies will enhance innovation, which in turn will improve the performance of SMEs to attain both financial and non-financial objectives.

The verification of such positive links between entrepreneurial competencies and SME performance provides a number of valuable theoretical and practical implications. The results well suggest that planning, information seeking, and innovation are important for enduring performance of a business. Those business owner-managers who wish to grow their business should acquire competencies in systematic planning and monitoring, management of information (search for/generate, analyze, disseminate and deploy) and innovation. Therefore, policymakers and development aid organizations should focus on entrepreneurial development initiatives toward reinforcing those positively exhibited competencies and reducing the dependency on the weak entrepreneurial competencies (i.e., improving them) in the business life of operating entrepreneurs and would-be entrepreneurs. Understanding the SME performance through entrepreneurial competencies offer entrepreneurs with knowledge about the way they would run their business and enables them to be aware of the potential positive or negative influences of their own behavior or actions, too.

The findings of the study may also help educators and trainers in identifying and teaching the determining factors of business success. Educators and policymakers must be aware of the fact that formulating relevant training programs that may improve existing and prospective entrepreneurs' competencies targeting the emergence of a strong and competitive SME sector. Moreover, support facilities for innovation must consider providing a specialized approach for SMEs and other entrepreneurial businesses and linking business management consultancy on strategic planning to innovative projects for the SMEs. A credible regional or national innovation policy that fosters an entrepreneurial culture is indispensable to create a more competitive economy with increased job opportunities.

In conclusion, the higher level of entrepreneurial competencies will enhance innovation, which in turn, will improve the performance of SMEs to attain both financial and non-financial objectives. There is no doubt that planning, information seeking, and innovation are vital to the success of the small business. Hence, both practice and research should continue to give a prime focus on business success through the lens of the people competency or the clusters of business-related knowledge, attitudes, and skills that the entrepreneur can acquire and develop through training and development rather than the environment variables that the entrepreneur has little or no control over.

## **VI. Limitations and Directions for Future Research**

The results of this study must be viewed in consideration of the following limitations. As a cross-sectional data was used, establishing a cause-and-effect link may be deterred. Other factors such as gender and age differences, level of education, sector of operation, capital outlay, firm's age and experience, number of employees, etc., were not considered in this study. Future studies may consider these factors and undertake a group-wise mediation analysis in different contexts (Peake et al., 2018; Gebreyesus, 2009). Moreover, data for the study were collected merely using a self-report instrument from the same respondents, owner-managers, for competencies and SME performance within the same period and context which might expose to response bias. Future studies would consider ways to obtain competency and SME performance data from multiple informants using multiple methods to reduce the possibility of response bias.

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Appendix: Survey Instrument

| Construct                                |                   | Indicators  |
|--|-------------------|---|
| Systematic planning and monitoring (SPM) | SPM1              | I plan a large task by breaking it down into smaller activities.  |
|  | SPM2              | Before doing something, I carefully weigh the advantages and disadvantages of different ways of accomplishing it. |
|  | SPM3              | I try to take into consideration all the problems that may crop up and think about what to do if they happen.     |
|  | SPM4 <sup>a</sup> | I deal with problems as they arise, rather than wasting time trying to anticipate them.                           |
|  | SPM5              | If one way of solving a problem does not work, I look for another approach.                                       |
| Information seeking (IS)                 | IS1               | When starting a new task or project, I gather as much information as possible beforehand.                         |
|  | IS2               | At work, I seek the advice of people who know more than I do.   |
|  | IS3 <sup>a</sup>  | I do things without wasting time gathering information.   |
|  | IS4               | When I do something for somebody, I ask all the questions I need to feel sure I understand what they want.        |
|  | IS5               | I look for information in a variety of places when I need help to do something.                                   |
|  | IS6               | No matter whom I am speaking with, I always listen very carefully.  |
| Innovation (INNV)                        | INNV1             | Introduction of new products/services   |
|  | INNV2             | Introduction of new production methods  |
|  | INNV3             | Opening of new markets to the existing products/services  |
|  | INNV4             | Introducing new marketing or sales methods  |
|  | INNV5             | Improving existing products/services  |
|  | INNV6             | Improving the existing process of production or sales of a product  |
|  | INNV7             | Acquiring a new and cheaper source of supply for a means of production  |
| SME performance:                         |                   |   |
| Financial Performance (FP)               | FP1               | Our enterprise's overall profitability has been much better than our competitors.                                 |
|  | FP2               | Our enterprise has been able to achieve profitability objectives.   |
|  | FP3               | Our enterprise has been able to achieve sales objectives.   |
|  | FP4               | Our enterprise has been able to achieve market share objectives.  |
|  | FP5               | I, as an owner/manager, have acquired personal goods such as a house or car due to earnings from the business.    |
| Non-financial Performance (NFP)          | NFP1              | We have been able to improve the loyalty of existing customers better than our competitors.                       |
|  | NFP2              | We have attracted a significant number of new customers.  |
|  | NFP3              | Our enterprise has had market acceptance, for example, recognition, product quality, or good reputation.          |
|  | NFP4              | Relative to major competitors, our enterprise has been able to better satisfy the customers.                      |
|  | NFP5              | We have been able to deliver what our customers want.   |

**Note:** a = item needs to be reversed.

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